

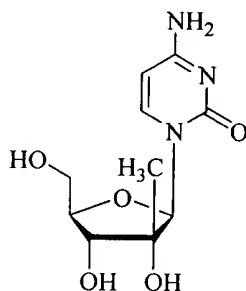
This listing of claims will replace all prior versions, and listing, of claims in the application:

100 - 102, 131-141, 145-181

**Listing of Claims:**

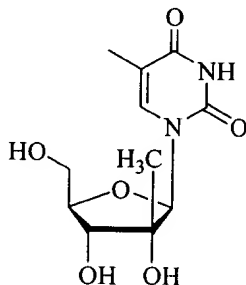
Claims 1-99 (cancelled)

Claim 100 (currently amended): A method for the treatment of a flavivirus or pestivirus infection in a host, comprising administering an antivirally effective amount of a  $\beta$ -D nucleoside compound of the structure: *to who?*



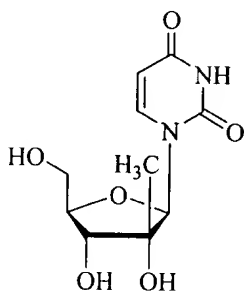
or a pharmaceutically acceptable salt or prodrug thereof, optionally in a pharmaceutically acceptable carrier or diluent.

Claim 101 (currently amended): A method for the treatment of a flavivirus or pestivirus infection in a host, comprising administering an antivirally effective amount of a  $\beta$ -D nucleoside compound of the structure: *to who*



or a pharmaceutically acceptable salt or prodrug thereof, optionally in a pharmaceutically acceptable carrier or diluent.

Claim 102 (currently amended): A method for the treatment of a flavivirus or pestivirus infection in a host, comprising administering an antivirally effective amount of a  $\beta$ -D nucleoside compound of the structure:



or a pharmaceutically acceptable salt or prodrug thereof, optionally in a pharmaceutically acceptable carrier or diluent.

Claims 103-130 (canceled)

Claim 131 (currently amended): The method of any one of claims ~~83, 86, 89, 90~~, 100, 101, 102, or ~~148-150~~ 145-150, wherein the pharmaceutically acceptable carrier is suitable for oral delivery.

Claim 132 (currently amended): The method of any one of claims ~~83, 86, 89, 90~~, 100, 101, 102, or ~~148-150~~ 145-150, wherein the pharmaceutically acceptable carrier is suitable for intravenous delivery.

Claim 133 (currently amended): The method of any one of claims ~~83, 86, 89, 90~~, 100, 101, 102, or ~~148-150~~ 145-150, wherein the pharmaceutically acceptable carrier is suitable for parenteral delivery.

Claim 134 (currently amended): The method of any one of claims ~~83, 86, 89, 90~~, 100, 101, 102, or ~~148-150~~ 145-150, wherein the pharmaceutically acceptable carrier is suitable for intradermal delivery.

Claim 135 (currently amended): The method of any one of claims ~~83, 86, 89, 90~~, 100, 101, 102, or ~~148-150~~ 145-150, wherein the pharmaceutically acceptable carrier is suitable for subcutaneous delivery.

Claim 136 (currently amended): The method of any one of claims ~~83, 86, 89, 90~~, 100, 101, 102, or ~~148-150~~ 145-150, wherein the pharmaceutically acceptable carrier is suitable for topical delivery.

*Does Not Limit*  
Claim 137 (currently amended): The method of any one of claims ~~83, 86, 89, 90~~, 100, 101, 102, or ~~148-150~~ 145-150, wherein the compound is in the form of a dosage unit.

Claim 138 (previously presented): The method of claim 137, wherein the dosage unit contains 10 to 1500 mg of the compound.

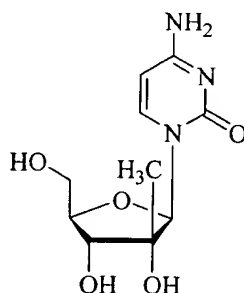
Claim 139 (previously presented): The method of claim 137, wherein the dosage unit is a tablet or capsule.

Claim 140 (previously presented): The method of claim 138, wherein the dosage unit is a tablet or capsule.

Claim 141 (currently amended): The method of any one of claims ~~83, 86, 89, 90, 100, 101, or 102~~, 100, 101, 102, or 145-150, wherein the host is a human.

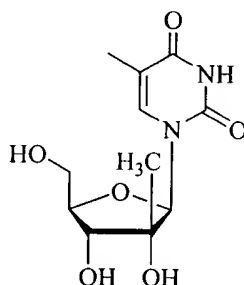
Claims 142-144 (canceled)

Claim 145 (currently amended): A method for the treatment of a flavivirus or pestivirus infection in a human, comprising administering an antivirally effective amount of a  $\beta$ -D nucleoside compound of the structure:



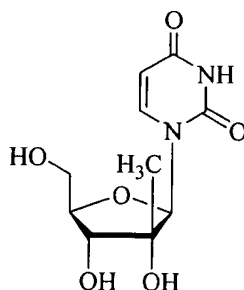
or a pharmaceutically acceptable salt or ester thereof.

Claim 146 (currently amended): A method for the treatment of a flavivirus or pestivirus infection in a human, comprising administering an antivirally effective amount of a  $\beta$ -D nucleoside compound of the structure:



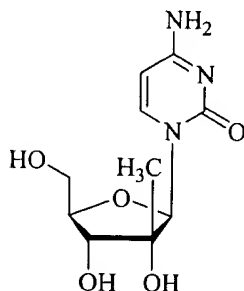
or a pharmaceutically acceptable salt or ester thereof.

Claim 147 (currently amended): A method for the treatment of a flavivirus or pestivirus infection in a human, comprising administering an antivirally effective amount of a  $\beta$ -D nucleoside compound of the structure:



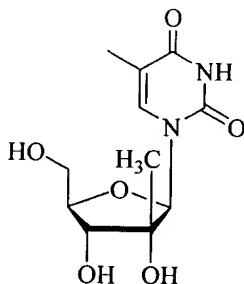
or a pharmaceutically acceptable salt or ester thereof.

Claim 148 (currently amended): A method for the treatment of a flavivirus or pestivirus infection in a human, comprising administering an antivirally effective amount of a  $\beta$ -D nucleoside compound of the structure:



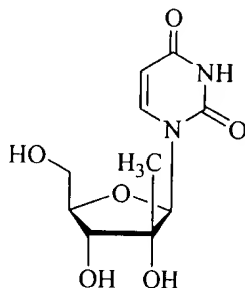
or a pharmaceutically acceptable salt thereof, optionally in a pharmaceutically acceptable carrier.

Claim 149 (currently amended): A method for the treatment of a flavivirus or pestivirus infection in a human, comprising administering an antivirally effective amount of a  $\beta$ -D nucleoside compound of the structure:



or a pharmaceutically acceptable salt thereof, optionally in a pharmaceutically acceptable carrier or diluent.

Claim 150 (currently amended): A method for the treatment of a flavivirus or pestivirus infection in a human, comprising administering an antivirally effective amount of a  $\beta$ -D nucleoside compound of the structure:



or a pharmaceutically acceptable salt thereof, optionally in a pharmaceutically acceptable carrier or diluent.

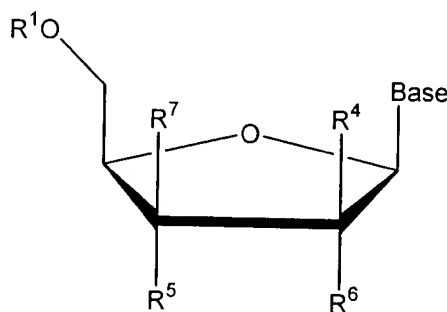
Claim 151 (currently amended): The method of any one of claims ~~83, 86, 89, 90~~, 100, 101, 102, or ~~148-150~~ 145-150, wherein the pestivirus or flavivirus is bovine viral diarrhea virus (BVDV).

Claim 152 (currently amended): The method of any one of claims ~~83, 86, 89, 90~~, 100, 101, 102, or ~~148-150~~ 145-150, wherein the pestivirus or flavivirus is a Dengue virus.

Claim 153 (currently amended): The method of any one of claims ~~83, 86, 89, 90~~, 100, 101, 102, or ~~148-150~~ 145-150, wherein the pestivirus or flavivirus is a West Nile virus.

Claim 154 (currently amended): The method of any one of claims ~~83, 86, 89, 90~~, 100, 101, 102, or ~~148-150~~ 145-150, wherein the pestivirus or flavivirus is a yellow fever virus.

Claim 155 (new): A method for the treatment of a flavivirus or pestivirus infection in a host, comprising administering an anti-virally effective amount of a  $\beta$ -D nucleoside compound of formula:



or a pharmaceutically acceptable salt thereof, optionally in a pharmaceutically acceptable carrier or diluent, wherein:

Base is a pyrimidine base;

*Markush confusing*  
 $R^1$  is independently H; phosphate; stabilized phosphate prodrug; acyl; alkyl; sulfonate ester and benzyl, wherein the phenyl group is optionally substituted with one or more substituents; a lipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered *in vivo* is capable of providing a compound wherein  $R^1$  is independently H or phosphate; and

$R^4$  is alkyl, alkynyl,  $-C(O)O(alkyl)$ ,  $-C(O)O(lower\ alkyl)$ ,  $-O(acyl)$ ,  $-O(lower\ acyl)$ ,  $-O(alkyl)$ ,  $-O(lower\ alkyl)$ ,  $-O(alkenyl)$ , halogen,  $NO_2$ ,  $NH_2$ ,  $-NH(lower\ alkyl)$ ,  $-NH(acyl)$ ,  $-N(lower\ alkyl)_2$ ,  $-N(acyl)_2$ ; and

$R^5$  and  $R^6$  are independently  $OR^1$ , hydroxy, alkyl, azido, cyano, alkenyl, alkynyl, Br, vinyl,  $-C(O)O(alkyl)$ ,  $-C(O)O(lower\ alkyl)$ ,  $-O(acyl)$ ,  $-O(lower\ acyl)$ ,  $-O(alkyl)$ ,  $-O(lower\ alkyl)$ ,  $-O(alkenyl)$ , chlorine, bromine, iodine,  $NO_2$ ,  $NH_2$ ,  $-NH(lower\ alkyl)$ ,  $-NH(acyl)$ ,  $-N(lower\ alkyl)_2$ ,  $-N(acyl)_2$ ;

$R^7$  is H, alkyl, chlorine, bromine, or iodine; and

X is O, S,  $SO_2$ , or  $CH_2$ .

Claim 156 (new): The method of claim 155, wherein the pyrimidine base is selected from the group consisting of thymine, cytosine, 5-fluorocytosine, 5-methylcytosine, 6-azapyrimidine, including 6-azacytosine, 2- and/or 4-mercaptopyrimidine, uracil, 5-halouracil,  $C^5$ -alkylpyrimidines,  $C^5$ -benzylpyrimidines,  $C^5$ -halopyrimidines,  $C^5$ -vinylpyrimidine,

C<sup>5</sup>-acetylenic pyrimidine, C<sup>5</sup>-acyl pyrimidine, C<sup>5</sup>-hydroxyalkyl purine, C<sup>5</sup>-amidopyrimidine, C<sup>5</sup>-cyanopyrimidine, C<sup>5</sup>-nitropyrimidine, or C<sup>5</sup>-aminopyrimidine.

Claim 157 (new): The method of claim 155, wherein R<sup>4</sup> is methyl, and R<sup>5</sup> and R<sup>6</sup> are hydroxyl.

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Claim 158 (new): The method of claim 155, wherein the compound is in the form of a dosage unit.

Claim 159 (new): The method of claim 158, wherein the dosage unit contains 50 to 1000 mg.

Claim 160 (new): The method of claim 158, wherein said dosage unit is a tablet or capsule.

Claim 161 (new): The method of claim 155, wherein the host is a human.

Claim 162 (new): The method of claim 155, wherein the compound is in substantially <sup>?</sup>pure form.

Claim 163 (new): The method of claim 155, wherein the compound is at least 90% by weight free of the  $\beta$ -L-isomer.

Claim 164 (new): The method of claim 155, wherein the compound is at least 95% by weight free of the  $\beta$ -L-isomer.

Claim 165 (new): The method of claim 155, wherein the pharmaceutically acceptable carrier is suitable for oral delivery.

Claim 166 (new): The method of claim 155, wherein the pharmaceutically acceptable carrier is suitable for intravenous delivery.

Claim 167 (new): The method of claim 155, wherein the pharmaceutically acceptable carrier is suitable for parenteral delivery.



Claim 168 (new): The method of claim 155, wherein the pharmaceutically acceptable carrier is suitable for intradermal delivery.

Claim 169 (new): The method of claim 155, wherein the pharmaceutically acceptable carrier is suitable for subcutaneous delivery.

Claim 170 (new): The method of claim 155, wherein the pharmaceutically acceptable carrier is suitable for topical delivery.

Claim 171 (new): The method of claim 155, wherein the pestivirus or flavivirus is bovine viral diarrhea virus (BVDV).

Claim 172 (new): The method of claim 155, wherein the pestivirus or flavivirus is a Dengue virus.

Claim 173 (new): The method of claim 155, wherein the pestivirus or flavivirus is a West Nile virus.

Claim 174 (new): The method of claim 155, wherein the pestivirus or flavivirus is a yellow fever virus.

Claim 175 (new): The method of claim 155, wherein  $R^4$  is alkyl.

Claim 176 (new): The method of claim 155, wherein  $R^5$  is hydroxy.

Claim 177 (new): The method of claim 155, wherein  $R^6$  is hydroxy.

Claim 178 (new): The method of claim 155, wherein  $R^7$  is H.

Claim 179 (new): The method as in any one of claims 100-102 or 145-150, wherein the compound is in substantially pure form.

Claim 180 (new): The method as in any one of claims 100-102 or 145-150, wherein the compound is at least 90% by weight free of the  $\beta$ -L-isomer.

Claim 181 (new): The method as in any one of claims 100-102 or 145-150, wherein the compound is at least 95% by weight free of the  $\beta$ -L-isomer.